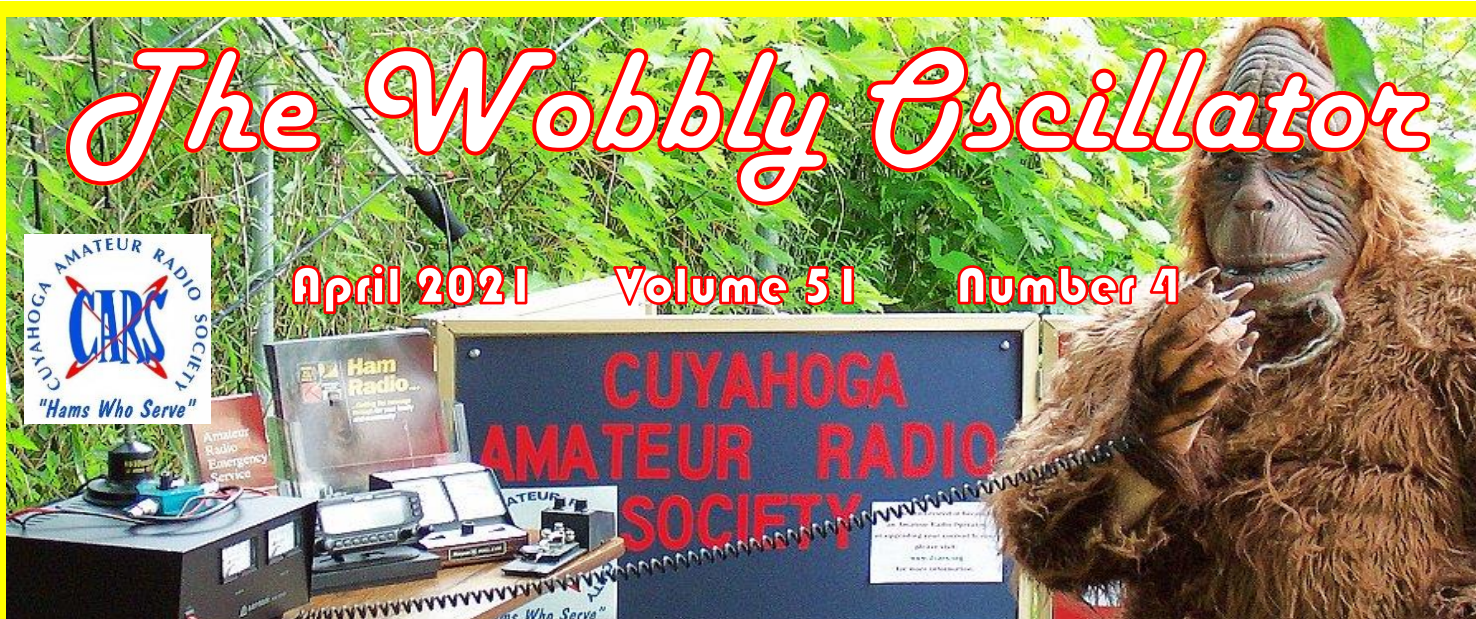




From The Prez
We're Sticking with My Friends

Amid any controversy regarding the recent incident at My Friends Restaurant the club members who checked into last week's net voted almost unanimously to keep on - keepin' on, and hold our April meeting at the restaurant. We have a great program scheduled starring Ron, K8RJH and Andy, KD8SCV, on hotspots and digital voice modes. Check out Andy's preview down the page. I'm sure it will be very interesting.

We also will discuss what to do for our May meeting. It looks like the pavilions will be open at the Metroparks, so we may want to slip in an early outdoor meeting. Think it over, and we'll discuss it at the meeting and decide what to do.

We will format the meeting similarly to how we have done the last several months. The actual meeting will begin at 7:30 from the restaurant and we will patch in Zoom and the repeater. The Zoom meeting will be projected on the screen in the dining room. Once again, Ron, K8RJH, will monitor and control the Zoom element, and David, KD8ACO, will control the repeater.

My Friends Restaurant is located at 11616 Detroit Rd. in Cleveland. Dinner reservations are for 6:00 PM. We always emphasize dinner is optional; members are certainly welcome to attend and not order dinner.

With the opportunity to attend the meeting in person, via Zoom on the internet, or on the repeater - which is capable of 2 meters, UHF digital Fusion, EchoLink, and AllStar; there is little or no reason not to attend the March meeting. Hope to "see" you there.

Mark at the Mike

Let's take a minute to give a pat on the back our newest Net Control Station – Mark, KC8ESG. Mark has been doing a splendid job running the nets since he started recently. He's a natural. Most of the frequent net participants have heard Mark check in for several years from work on his break time. He has made arrangements with his employer to be scheduled around the evenings he will be doing the net. We appreciate his extra effort to make himself available to run the nets and compliment him on his smooth style while doing so.

Kelly Talks to the Space Station

CARS member and Chane1 19 Meteorologist Kelly Dobeck, KD8TWX, made an exciting contact with the International Space Station on March 22nd. She later aired the contact and description on Chane1 19. Kelly certainly gave amateur radio a big plug, and we are surely proud of her. If you haven't seen the clip, we posted a link on the homepage of the CARS website. I'm sure you will enjoy it.

73, Toby, WT8O



Here's the link to Kelly's report:

<https://www.cleveland19.com/video/2021/03/23/first-alert-science-school-stem-education-space-station/>

Welcome New
Member
Shawn Cresante
KESRMV

Medal of Honor

On March 25th in 1863 President Lincoln signed into law a bill that created the Medal of Honor, our country's highest military decoration for bravery in time of combat to thank those who served.

Submitted by Bob, KC8MRC



Cuyahoga Amateur Radio Society March 9th Meeting Minutes

LOCATION---The meeting was held at My Friends Restaurant, 11616 Detroit Avenue in Cleveland. The meeting was also available via Zoom and on the club repeater.

CALLED TO ORDER---The meeting was called to order by President Toby Kolman, WT8O, at 7:32 P.M.

PLEDGE OF ALLEGIANCE---Those present pledged allegiance to the flag of the United States of America.

INTRODUCTIONS---Those present, as well as those on Zoom and on the repeater, introduced themselves.

FEBRUARY MINUTES---The February minutes were approved as published in the March *Wobbly Oscillator*.

TREASURER'S REPORT---Bob Check, W8GC, gave the Treasurers' report via Zoom. Any dues not paid are past due. These members are not in good standing and cannot vote. 29 members are past due.

PRESIDENT'S REPORT---President Toby, WT8O, requested material for the *Wobbly Oscillator* - items for sale, pictures, articles or anything else. Please update your membership information - classification, address, phone number, etc. - with the web master. The club needs someone to make coffee at the meetings.



Esther works the room with her captivating charm.



It was good to see George, K8KR, make the scene.

VICE PRESIDENT'S REPORT---Mark Moro, WJ8WM, requested that any ARRL renewals be done through the club.

SUGGESTIONS FOR IMPROVEMENT---Toby, WT8O, requested suggestions for improving the group. No suggestions were made from the group.

VE UPDATE---Metro, W8MET, reported that there is a VE session Sunday, March 14th at 9:00 AM. Remember that there is a time change this week.

TECH---Scott, AC8NW, reported that Vince, N8OVW; Ron, K8RJH; Mark, WJ8WM and Toby, WT8O, did work for Brecksville on Sunday in the building where the CARS repeater is located. As a part of this, the CARS repeater will be upgraded with a new voter.

PROGRAM COMMITTEE---Joe, KD8BAL, reported that next month Ron, K8RJH, and Andy, KD8SCV, will present about hot spots and digital voice modes (DVM).

PUBLIC SERVICE---Ron, K8RJH, reported that this month is SkyWarn 2021 training. Training is 2.5 hours and results in a certificate. The upcoming ARES events were shared. The Cleveland Marathon is delayed. There is a tornado drill during the third week of March.

NEXT MEETING---The April 13th meeting will once again be held at My Friends Restaurant. The meeting will also be available on Zoom and on the club repeater.

50/50 DRAWING---The 50/50 drawing was won by Andy, KD8SCV.

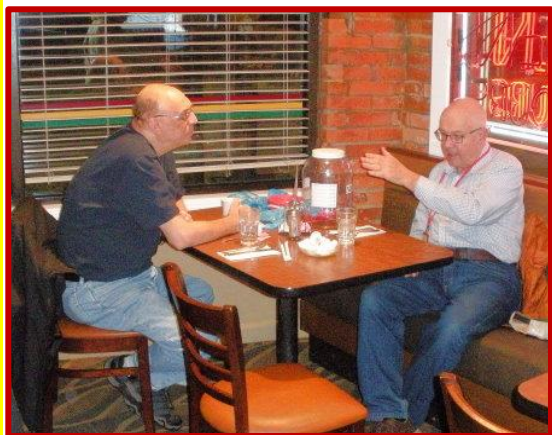
ADJOURNMENT---The meeting was adjourned at 7:53 P.M.

After the meeting, Carl Luetzelschwab, K9LA, ARRL Central Division Vice Director gave a talk on sun spots and propagation.

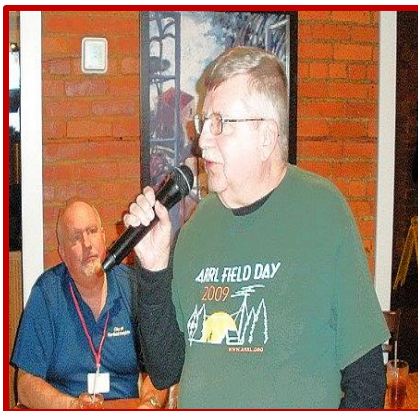
Submitted by Ed, WB8ROK, and Matt, KE8OZU



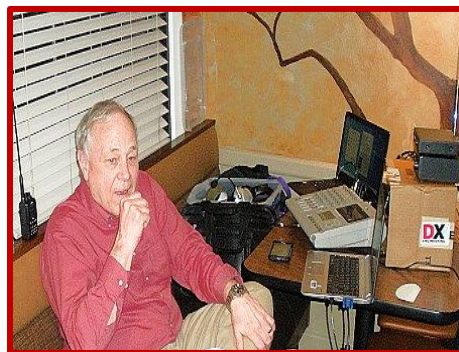
A jolly group of hams, the Stevens family is.



Bruno, W8BJS, and Andy, KD8SCV, engaged in what has to be a highly intellectual conversation.



Joe, KD8BAL, thanks our guest speaker Karl, K9LA.



Our master engineer Ron, K8RJH, at the media control center.

Are you above the A line?
A History Lesson and Best Practices
Ron, K8RJH

Recently I had configured a new Raspberry PiStar for use as a 70 cm Amateur HotSpot and noticed the default operating frequency was set for 430.00 MHz. Even though the initial operating frequency was well within in the American 70 cm amateur band, this default programming value seemed suspect. A uniformed user may assume the default frequency is an appropriate setting for the device, having a low possibility of causing any interference, and then continue to operate the Hot Spot system without further programming or changes.

In addition, it may not be surprising that 450 MHz HotSpots and handheld transceivers (HT's) can communicate on RF over a significant distance while even using their lowest power settings. This is always an important factor to consider in the channel selection of these popular devices as not to cause any interference to another amateur or third party.

For our location of Ohio, there is an additional regulatory item that must be followed with selecting a 70 cm frequency for the Hotspot and the radio connecting to it. This is covered in Part 97.3(a) and 97.303(m) and is commonly known as the "Line A" Restriction for 70 cm. Some history and information on this regulation follows below.

This "Line A" is a boundary line drawn from a 1965 treaty between the United States and Canada. It is intended to prevent interference of UHF signals (400 MHz and above) to and from the United States crossing over the border and entering into Canadian Territory with existing radio services within both countries. If your operating location, stationary or mobile, for 70 cm is in the greater Cleveland, Ohio area, you are operating in the "Line A" zone.

Line A, B C and D restrictions are defined in the FCC regulations, 47CFR90.7, Definitions. They are "... taken from Paragraph 2 of Arrangement A contained in the revised Technical Annex to the agreement between the United States and Canada on the 'Coordination and Use of Radio Frequencies Above 30 Megacycles per Second', signed at Ottawa on June 16 and 24, 1965.

The 70 cm band is quite generous in size, extending from 420 to 450 MHz, which is available for most US amateur station locations. If your operating location is along the northern border of the US, and above the "A Line" as referenced in 97.303(m), then operating in the lower 10 MHz of the 70 cm band, specifically the 420 to 430 MHz band segment, is not allowed.

In fact, there are additional other operating restrictions, both in operating frequencies and power for 70 cm that the US amateur shall observe based on your operating location. These include published "quiet zones" as stated in the **FCC Table of Allocations - US270** for many of the Western States, Florida, Georgia, Massachusetts and Texas to name a few.

All of these areas, including the "Line A" zone, include popular travel routes and destinations for many amateurs. Being aware of these operating restrictions as one transmits through these zones with new 70 cm HT and Hotspots may inadvertently be in violation by simply relying on just on their default or home based band plan settings for frequency and power!

In the case of my new Hotspot, using the default 430.00 MHz transmit setting within the Cleveland, Ohio area, would place the device on the operating band edge of the “Line A” restriction. The lower sideband emissions would certainly extend into “Line A” exclusion frequency range. The prudent amateur would immediately move the operating frequency up to a recommended simplex or duplex channel of the band plan observed in the local area on its initial power up. In addition, when traveling with these devices, pre-setting or programming the Hotspot in the transit and destination band plans will keep your operating experience in compliance with all regulations and local practices.

Knowing the FCC frequency authorizations is a good start. However, we always need to check a bit further on our operating settings before we operate at home or traveling with these new popular devices. Knowing some of the history helps define and aids us understanding these best practices to follow in being responsible amateur operators with our entire operating spectrum.

47 CFR § 97.303 - Frequency sharing requirements

Subpart (m) In the 70 cm band:

- (1) No [amateur station](#) shall transmit from north of [Line A](#) in the 420-430 MHz segment. See [§ 97.3\(a\)](#) for the definition of [Line A](#).
- (2) [Amateur stations](#) transmitting in the 420-430 MHz segment must not cause [harmful interference](#) to, and must accept interference from, [stations](#) authorized by the [FCC](#) in the land [mobile service](#) within 80.5 km of Buffalo, Cleveland, and Detroit. See [§ 2.106](#), footnote US230 for specific frequencies and coordinates.
- (3) [Amateur stations](#) transmitting in the 420-430 MHz segment or the 440-450 MHz segment must not cause [harmful interference](#) to, and must accept interference from, [stations](#) authorized by other nations in the fixed and mobile except aeronautical mobile services.



FCC 47 CFR § 97.303 “Line A” Exclusion Zone Boundary for Northern Ohio



Line A, B, C, and D Operating Restriction Zones as referenced in FCC 47 CFR § 97.303

April Net Sked

APR	7	K8RJH
APR	14	N8OWS
APR	21	AC8NW
APR	28	KD8ACO

**Nets are run every Wednesday at
9:00 PM on:**

146.820 (PL 110.9)

443.825 (+) PL Tone 131.8
Digital Yaesu Fusion
Linked to 146.82 Repeater

EchoLink Node 343470 (K8ZFR-R)

Allstar Node 47067

Reminder – HotSpots and Digital Voice Modes Presentation
April CARS Club Meeting
Andy, KD8SCV and Ron, K8RJH

Want to learn more about Digital Voice Modes (DVMs) and HotSpots? Be sure to attend the April CARS club meeting at My Friends Restaurant.

Ron and I will give an overview of DVMs, HotSpots, and what you need to participate in this rapidly growing aspect of amateur radio. With just an HT, a HotSpot, and a Wi-Fi or mobile Internet connection, you can speak to the world.

We'll cover the basics, some of the nomenclature, resources, and hold a live demonstration so you can see and hear how it all works. And, we'll provide information on additional resources to help you get started. See you there!

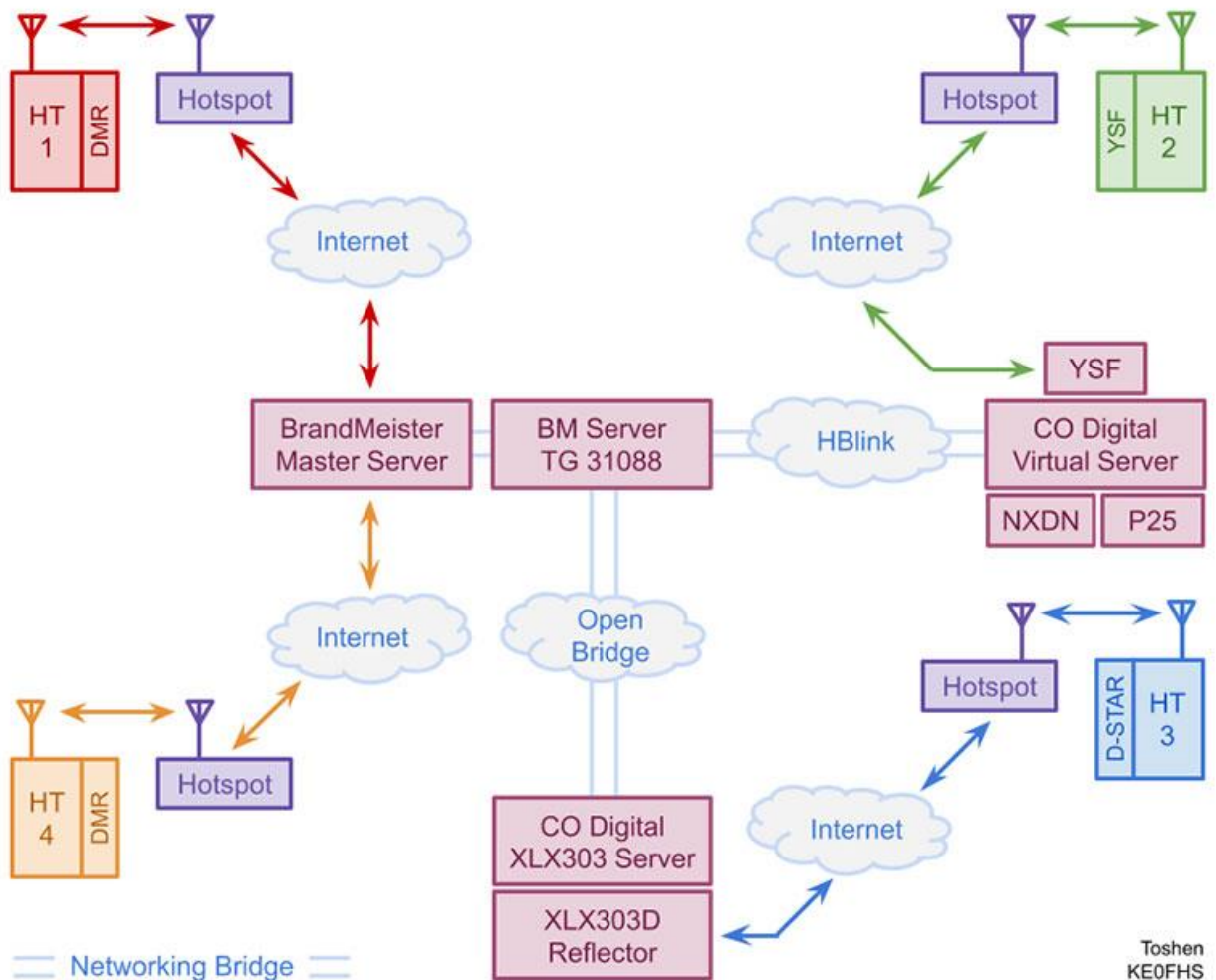


Illustration reproduced with permission, Amateur Radio Notes,
<https://amateurradio.net/hotspots.htm>, Toshen KE0FHS

March VE Session

The CARS March 14th VE was another very successful one. We welcome these new hams to the Amateur Radio Service who passed their Technician exams:

Andrew Horner, KE8RMQ
Michael Gaudio, KE8RMR
John Ray, Jr., KE8RMS
Kirk Prochaska, KE8RMT
Charles Pafford, KE8RMU
Shawn Cresante, KE8RMV (Also upgraded to General)

There were also hams that successfully passed their exams and upgraded their class:

James Shuster, KB8FST – Upgraded to General
Christopher Long, KD8NTJ – Upgraded to General
Phillip Kasper, KE8QMB – Upgraded to General
Earl Jolley, W8LYY – Upgraded to General
Stephen Hoca, KE8RQA – Upgraded to General

Special thanks to our outstanding VE team, capably led by Metro, W8MET, that included Gary, N18Z; Roger, N8TCP; Larry, N8OWS; George, K8KR; Linda, N8LRS, and Kirk, W0KM.

The next VE testing session will be held Sunday, May 9th, at 9:00 AM. The session is tentatively scheduled to be held at the Masonic Lodge, 29500 Center Ridge Rd., Westlake, Ohio 44145. However, Metro is attempting to move our VE sessions back to our traditional location in Independence. See the CARS website for up to date information.

For information or an appointment please contact Metro, W8MET, at 216-520-1320 or metro351@sbcglobal.net. As always, walk-ins are welcome.

NSA Report Bob, KC8MRC

NASA's new space launch system rocket at the Stennis test site in Mississippi was successful. The four engines fired for almost 700 seconds and used over 700,000 gallons of fuel and oxygen. The engineers will go over the data, and afterwards the core stage will be put onto a barge and sent to the Kennedy space center where it will be placed with the two solid rocket boosters and prepare the crew vehicle for a launch sometime in November or December of this year.

March Birthdays



Tim Campensa, KDSYQM	4/10/47
Mark Studer, KCSFQV	4/14/64
Gary Berkowitz, KSREF	4/19
Vince Bak, N8OVW	4/22/49
Bob Wright, KESCEO	4/22/63
John Cobb Sr., KC8WLY	4/23/57
Matt Perlman, KES0ZU	4/25/76
Brian Gerhard, KE8MQI	4/26/62
Joe Berngart, NC8J	4/27/51
Metro Sinko, WSMET	4/27/52
Bob Check, W8GC	4/29/41

From the Tech Committee
Scott, AC8NW

We have had some recent activity on the technical side after a long lull, mostly due to the Covid pandemic. Shortly after the last W.O. came out, Vince, N8OVW asked for some help at the Brecksville site. This was not to work on our equipment, but to help Vince help a Brecksville I.T. specialist remove a bunch of their systems from the racks, to free up room for new equipment. It was a nice opportunity to give back to Brecksville, whose fine people have been very good to us, allowing our club to have our main repeater in their building. Vince had begun to work with Myles, an IT specialist, before this project, and in conversation with Vince; Myles had expressed interest in becoming a Ham, and joining the club. On short notice, we had great participation from the Committee members available, and all were great ambassadors of the club to Myles, who seems to be a really good guy, and very knowledgeable.

So thanks to Vince, N8OVW; Ron, K8RGH; Mark, WJ8WM, and Toby, WT8O, for coming out to lend a hand and welcome a potential new member. We probably had more help than really required, but everyone chipped in and it was a productive outing.

I had hoped to write about some new improvements to the main repeater that are in the works, but I was unable to get a rewiring project done in time for this past Sunday. This is now complete and we will try to install soon. We will be replacing two old link receivers and installing a better voting system. More on that next month.

That's all for now, 73, AC8NW



Scott, AC8NW, and Mark, WJ8WM, work the tools, while Ron, K8RJD, promotes amateur radio to Myles.



The crew: Ron, K8RJD; Scott, AC8NW; Myles Rapkin, Mark, WJ8WM, and Ron, N8OVW.

CARS Repeaters

146.820 (-) PL Tone 110.9

Main Site – Brecksville

Receive Only Site – Brunswick

Receive Only Site – Shaker Hts.

Allstar Node 47067

EchoLink Node 343470 (K8ZFR-R)

Digital Yaesu Fusion

Linked to 443.825 (+) PL Tone 131.8

146.82 Repeater

Brecksville

444.75 (+) Receive PL Tone 131.8

449.75 Transmit

Stand-alone Not Linked

Shaker Hts.

Next CARS Meeting

Tuesday, April 13th-7:30 PM

My Friends Restaurant
11616 Detroit Rd.
Dinner at 6:00 pm

Also on Zoom
&
The CARS Repeater

Meeting Program
HotSpots &
Digital Voice Modes
Andy, KD8SCV & Ron, K8RJH



The equipment the boys removed for the City of Brecksville to be offered for sale.

Honorary Members

Any person who by nature of
outstanding or meritorious contribution
to the furtherance of amateur radio and
the ideals of the Cuyahoga Amateur
Radio Society

Robert Check, W8GC

Elected 2/10/15

Thomas Wayne, WB8N

Elected 1/10/17

Dwaine Modock, K8ME, SK

Elected 5/9/17

Toby Kolman, WT8O

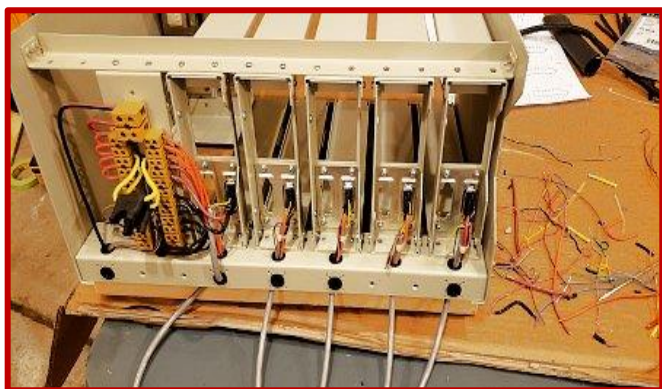
Elected 10/10/17

Jerry Smith, NW9H

Elected 5/8/18

Ron Borkey, K8VJG, SK

Elected 5/14/19



Scott, AC8NW, is rewiring the rack frame for the receivers on his bench at home to ready the system for the new voter.

RadioSport

Contests

April 18, 1800 – 2359 **ARRL Rookie Roundup, SSB** 3.5 - 28 Ph www.arrl.org/rookie-roundup
Exchange: Name, 2-digit year licensed, SPC

Special Events Stations

April 10, 1700 – 2100 **W4D** Kodak, TN **Spring has Sprung** 14.280 7.200 PSK31
14.070 7.070; CW only 7.060 www.eventqsl.webs.com

QSO Parties

April 3, 1400 – April 4, 0200 **Louisiana QSO Party** 1.8-144 CW Ph DIG laqp.louisianacontestclub.org
Exchange: RS(T), LA Parish or SPC

April 3, 1400 – April 4, 0200 **Mississippi QSO Party** 1.8 - 144 CW Ph Dig www.arrlmiss.org
Exchange: RS(T), MS county or SPC

April 10, 1300 - April 11, 2200 **Nebraska QSO Party** 1.8-UHF CW Ph www.nebraskaqsoparty.org
Exchange: County or SPC (or grid for FT8)

April 10, 1400 – April 11, 0200 **New Mexico QSO Party** 1.8-144 CW Ph Dig newmexicogsoparty.org
Exchange: Name, NM county or SPC

April 10, 1600 – April 11, 0400 **Georgia QSO Party** 1.8 – 28 CW Ph gagsoparty.com
Exchange: RST, GA county or SPC

April 10, 1800 – April 11, 1800 **North Dakota QSO Party** 1.8 - 144 CW Ph ndarrlsec.com
Exchange: RS(T), ND county or SPC

April 17, 1600 – April 18, 0400 **Michigan QSO Party** 3.5 - 28 CW Ph mignp.org/Rules.htm
Exchange: Serial, MI county or SPC

April 17, 1800 – April 18, 1800 **Ontario QSO Party** 1.8 - 144 CW Ph www.va3cco.com
Exchange: RS(T), ON county or SPC

April 24, 1600 – April 25, 2159 **Florida QSO Party** 7 – 28 CW Ph floridagsoparty.org/rules
Exchange: RS(T), FL county or SPC

Sampling from April, 2021 *QST* - Pg. 75 and 86. See *QST* for many more events. All times in GMT ZULU time

The *Wobbly Oscillator* is a publication of the Cuyahoga Amateur Radio Society, P.O. Box 31264, Independence, Ohio, 44130. Articles from this publication may be reprinted in any ham radio publication, provided that credit is given to this publication and the author, if known. All submissions should be emailed to: w8o@att.net by the end of the month for publication in the next month's issue.

CARS 2021 Officers & Committees

Audit

WJ8WM ** WT8O, KD8OUE

Audio/Video

AC8NW **

ARRL Liaison

WJ8WM **

Awards

W8GC ** WT8O

Christmas party & Summer Picnic

WJ8WM **, K8ARP

Club Photographer

N8OWS **

Field Day

K8RGI **, WT8O, WJ8WM, K8ARP, KD8SCV, AC8NW, AC8TN, WT8O, K8RJH, N8BBB food

50/50

KD8SCV

Hamvention Bus

KD8FTS **

License classes

KD8ACO **, WT8O, K8SHB

Media Representative

KD8SCV

Membership

WT8O ** W8GC

NET

WT8O **

Newsletter

WT8O ** 440-525-6109

wt8o@att.net

Programs at Meetings

KD8BAL ** KD8FTS, KE8OZU

Property Custodian's

KB8DTC records, W8GC equipment

Public Services

K8RJH **

QSL Manager - W8HBI, W8BM

WB8N **

Refreshments at Meetings & Picnic

K8RJH ** pop, NW8X ** Donuts

Scholarship

W8GC ** WJ8WM, K8RGI, WB8ROK, WT8O

Sunshine (welfare)

Andy, KD8SCV ** 440-886-0723

Technical

AC8NW ** N8OVW, WJ8WM, KD8ACO, K8RJH, KB8DTC

VE Exams

Metro, W8MET ** 216-520-1320

Web Master/e-mail

W8GC **

** chairman or co-chairman

2021 Officers

PRESIDENT

Toby Kolman WT8O 440-525-6109

wt8o@att.net

VICE-PRESIDENT

Mark Moro, WJ8WM 216-661-0342

SECRETARY

Ed Stevens, WB8ROK 216-267-5473

Alternate Secretary: KE8OZU

TREASURER:

Bob Check W8GC 216-524-1750

Alternate Treasurer: Bob Robbins, K8RGI

Board Members & License Trustees

Board Chairman:

Mike Kemmett, KD8OUE 216-744-4636 c

Alternate Chairman:

K8ARP, Arp Viiberg

even year executive board 2 year term

AC8NW, KB8DTC, KD8OUE

odd year executive board 2 year term

K8RGI, K8ARP, K8RJH

License trustee

K8ZFR

WT8O

License trustee

W8HBI, W8BM,

W8GC



March 30, 2021

